

A batten

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Applicant: CSR LTD

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Abstract of NZ530605

A batten (10) to be secured to a frame (11) by a threaded fastener (12). The batten is of a channeled configuration and includes a pair of longitudinally extending mounted flanges (17, 18) that are to be attached to the frame. Spaced from the flanges is a further flange (21) having flange portions (22, 23, 24) adapted to be sealingly attached to sheets (13, 14).

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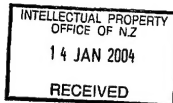


PATENTS FORM 5
PATENTS ACT 1953
COMPLETE SPECIFICATION

Our Ref: 661200NZ
Dated: 12 January 2004

A Batten

We, CSR Limited, an Australian company, ACN 000 001 276 of Level 1, 9 Help Street, Chatswood, New South Wales 2067, Australia, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:



A BATTEN

Technical Field

The present invention relates to battens and more particularly but not exclusively to battens used to secure fibre cement sheets to a frame.

Background of the Invention

Fibre cement sheets are secured to a frame by means of vertically extending battens and horizontally extending backing strips. The battens and backing strips lie behind the edges of the sheet.

Previously known battens are of a "U-shaped" transverse cross-section with longitudinally extending flanges that are secured to the frame. The batten has a pair of longitudinally extending generally parallel co-extensive webs and an end flange that is secured to the sheets. This previously known construction has the disadvantage that dimensional changes in the sheets due to changes in temperature and/or moisture can result in failure of the sheet. This will typically occur adjacent threaded fasteners that pass through the sheet and secure the sheet to the batten.

The above problem has been addressed by the batten described in Australian patent application 36492/00 (WO 00/63506). However, the batten of this Australian patent application has a number of problems including complexity in respect of connecting the sheets to the battens in a sealed manner.

Object of the Invention

It is the object of the present invention to overcome or substantially ameliorate the above disadvantages.

Summary of the Invention

There is disclosed herein a batten to secure sheets to a support, said batten including:

a pair of longitudinally extending and transversely spaced mounting flanges which are to be secured to the support, said flanges being generally located in a common plane;

a further flange, said further flange being located between the mounting flanges and being provided for said sheets to be secured thereto;

a pair of webs, each web extends between the further flange and a respective one of the mounting flanges so that the batten is of a channel configuration; and wherein

said further flange has a longitudinally extending recess defining portion longitudinally dividing said further flange into a first and a second longitudinally extending attachment flange portion to which the sheets are attached so that the sheets are separated by the recess portion, with the recess portion extending toward said common
5 plane from the flange portions.

Preferably, the further flange has a further recess portion so that said further flange has a central flange portion separating the first and second flange portions, with the first and second flange portions each being separated from the central portion by a respective one of the recess portions.

10 Preferably, said common plane is a first plane, and said first and second portions and central portion are located in a second common plane, said second plane being generally parallel to and spaced from said first plane.

Preferably, said batten is formed from rolled sheet material.

Brief Description of the Drawings

15 A preferred form of the present invention will now be described by way of example with reference to the accompanying drawing which schematically depicts in sectioned elevation a batten to which two fibre cement sheets are secured.

Detailed Description of the Preferred Embodiments

In the accompanying drawing there is schematically depicted a batten 10. The
20 batten 10 would be secured to a frame 11 by means of threaded fasteners 12 so that the batten 10 was generally vertically longitudinally extending.

The batten 10 secures fibre cement sheets 13 and 14 to the frame 11. The sheets 13 and 14 have edges 15 and 16 that are generally vertically oriented that would be joined in an appropriate manner.

25 The batten 10 is of a channel configuration and includes a pair of longitudinally extending mounting flanges 17 and 18 that are generally planar and located in a common plane 19. Each flange 17 and 18 has a longitudinally extending edge lip 20.

Transversely spaced from the frame 11 is a further flange 21. The further flange 21 includes a central flange portion 22 and two side flange portions 23 and 24. The
30 flange portions 22, 23 and 24 are located in a common plane 25. The plane 25 is generally parallel to and transversely spaced from the plane 19. The flange portions 22, 23 and 24 are generally planar.

The further flange 21 is also provided with at least one recess defining portion 26. In this embodiment there are two portions 26. The portions 26 are provided by a pair of longitudinally extending webs 27 joined by an arcuate base 28. Each portion 26 extends from the portions 22, 23 and 24 toward the plane 19.

5 The sheets 13 and 14 are secured to the portions 23 and 24 by means of threaded fasteners 29. The edges 15 and 16 are located so as to be adjacent the central portion 21, with a gasket or seal strip 30 located between the edge portions of the sheets 13 and 14 and the central portion 21 so as to sealingly connect the sheets 13 and 14 to the batten 10.

10 The further flange 21 is attached to the flanges 17 and 18 by side webs 31. The side webs 31 are generally normal to the planes 19 and 25, with each side web 31 attaching a respective one of the web portions 23 and 24 with a respective one of the mounting flanges 17 and 18.

 Preferably, the batten 10 is formed of sheet metal that is rolled to the configuration depicted.

15 In operation of the above described batten 10, dimensional changes of the sheets 13 and 14 are accommodated by elastic deformation of the webs 27 and 31.

CLAIMS:

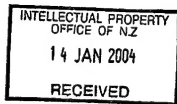
1. A batten to secure sheets to a support, said batten including:
 - a pair of longitudinally extending and transversely spaced mounting flanges which are to be secured to the support, said flanges being generally located in a common plane;
 - a further flange, said further flange being located between the mounting flanges and being provided for said sheets to be secured thereto;
 - a pair of webs, each web extends between the further flange and a respective one of the mounting flanges so that the batten is of a channel configuration; and wherein
 - said further flange has a longitudinally extending recess defining portion longitudinally dividing said further flange into a first and a second longitudinally extending attachment flange portion to which the sheets are attached so that the sheets are separated by the recess portion, with the recess portion extending toward said common plane from the flange portions.
2. The batten of claim 1 wherein, the further flange has a further recess portion so that said further flange has a central flange portion separating the first and second flange portions, with the first and second flange portions each being separated from the central portion by a respective one of the recess portions.
3. The batten of claim 1 or 2 wherein, said common plane is a first plane, and said first and second portions and central portion are located in a second common plane, said second plane being generally parallel to and spaced from said first plane.
4. The batten of claim 1 or 2 wherein, said batten is formed from rolled sheet material.
5. A batten substantially as hereinbefore described with reference to the accompanying drawings.

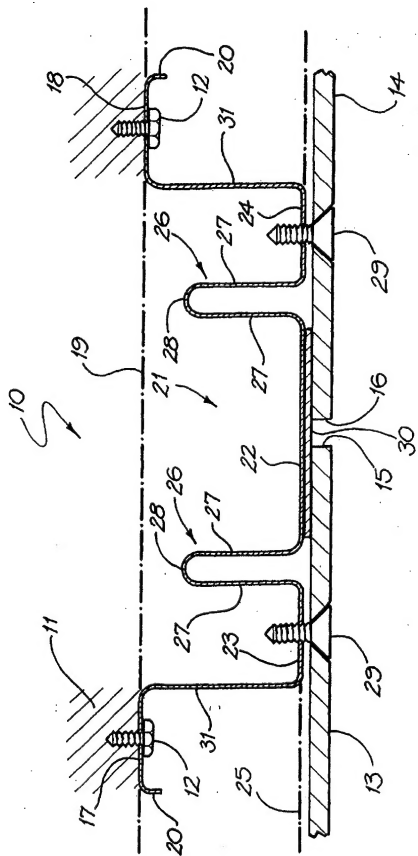
CSR Limited

By the Attorneys for the Applicant

SPRUSON & FERGUSON

Per: 





END